



## National Highway Traffic Safety Administration

### Petition for Exemption from the Federal Motor Vehicle Theft Prevention Standard; Mazda Motor Corporation

**AGENCY:** National Highway Traffic Safety Administration (NHTSA), Department of Transportation (DOT).

**ACTION:** Grant of petition for exemption.

**SUMMARY:** This document grants in full the Mazda Motor Corporation (Mazda) petition for exemption from the Federal Motor Vehicle Theft Prevention Standard (theft prevention standard) for its confidential vehicle line beginning in model year (MY) 2024. The petition is granted because the agency has determined that the antitheft device to be placed on the line as standard equipment is likely to be as effective in reducing and deterring motor vehicle theft as compliance with the parts-marking requirements of the theft prevention standard. Mazda also requested confidential treatment for specific information in its petition. Therefore, no confidential information provided for purposes of this notice has been disclosed.

**DATES:** The exemption granted by this notice is effective beginning with the 2024 model year.

**FOR FURTHER INFORMATION CONTACT:** Carlita Ballard, Office of International Policy, Fuel Economy, and Consumer Programs, NHTSA, West Building, W43-439, NRM-310, 1200 New Jersey Avenue, S.E., Washington, D.C. 20590. Ms. Ballard's phone number is (202) 366-5222. Her fax number is (202) 493-2990.

#### SUPPLEMENTARY INFORMATION:

Under 49 U.S.C. Chapter 331, the Secretary of Transportation (and the National Highway Traffic Safety Administration (NHTSA) by delegation) is required to promulgate a theft prevention standard to provide for the identification of certain motor vehicles and their major replacement parts to impede motor vehicle theft. NHTSA promulgated regulations at 49 CFR part 541 (theft prevention standard) to require parts-marking for specified passenger motor

vehicles and light trucks. Pursuant to 49 U.S.C. 33106, manufacturers that are subject to the parts-marking requirements may petition NHTSA, by delegation, for an exemption for a line of passenger motor vehicles equipped with an antitheft device as standard equipment that NHTSA decides is likely to be as effective in reducing and deterring motor vehicle theft as compliance with the parts-marking requirements. In accordance with this statute, NHTSA promulgated 49 CFR part 543, which establishes the process through which manufacturers may seek an exemption from the theft prevention standard.

49 CFR 543.5 provides general submission requirements for petitions and states that each manufacturer may petition NHTSA for an exemption of one vehicle line per model year. Among other requirements, manufacturers must identify whether the exemption is sought under section 543.6 or section 543.7. Under section 543.6, a manufacturer may request an exemption by providing specific information about the antitheft device, its capabilities, and the reasons the petitioner believes the device to be as effective at reducing and deterring theft as compliance with the parts-marking requirements. Section 543.7 permits a manufacturer to request an exemption under a more streamlined process if the vehicle line is equipped with an antitheft device (an “immobilizer”) as standard equipment that complies with one of the standards specified in that section.<sup>1</sup>

Section 543.8 establishes requirements for processing petitions for exemption from the theft prevention standard. As stated in section 543.8(a), NHTSA processes any complete exemption petition. If NHTSA receives an incomplete petition, NHTSA will notify the

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<sup>1</sup> 49 CFR 543.7 specifies that the manufacturer must include a statement that their entire vehicle line is equipped with an immobilizer that meets one of the following standards:

- (1) The performance criteria (subsections 8 through 21) of C.R.C. c. 1038.114, *Theft Protection and Rollaway Prevention (in effect March 30, 2011)*, as excerpted in appendix A of [part 543];
- (2) National Standard of Canada CAN/ULC-S338-98, *Automobile Theft Deterrent Equipment and Systems: Electronic Immobilization* (May 1998);
- (3) United Nations Economic Commission for Europe (UN/ECE) Regulation No. 97 (ECE R97), *Uniform Provisions Concerning Approval of Vehicle Alarm System (VAS) and Motor Vehicles with Regard to Their Alarm System (AS)* in effect August 8, 2007; or
- (4) UN/ECE Regulation No. 116 (ECE R116), *Uniform Technical Prescriptions Concerning the Protection of Motor Vehicles Against Unauthorized Use* in effect on February 10, 2009.

petitioner of the deficiencies. Once NHTSA receives a complete petition the agency will process it and, in accordance with section 543.8(b), will grant the petition if it determines that, based upon substantial evidence, the standard equipment antitheft device is likely to be as effective in reducing and deterring motor vehicle theft as compliance with the parts-marking requirements of part 541.

Section 543.8(c) requires NHTSA to issue its decision either to grant or to deny an exemption petition not later than 120 days after the date on which a complete petition is filed. If NHTSA does not make a decision within the 120-day period, the petition shall be deemed to be approved and the manufacturer shall be exempt from the standard for the line covered by the petition for the subsequent model year.<sup>2</sup> Exemptions granted under part 543 apply only to the vehicle line or lines that are subject to the grant and that are equipped with the antitheft device on which the line's exemption was based, and are effective for the model year beginning after the model year in which NHTSA issues the notice of exemption, unless the notice of exemption specifies a later year.

Sections 543.8(f) and (g) apply to the manner in which NHTSA's decisions on petitions are to be made known. Under section 543.8(f), if the petition is sought under section 543.6, NHTSA publishes a notice of its decision to grant or deny the exemption petition in the Federal Register and notifies the petitioner in writing. Under section 543.8(g), if the petition is sought under section 543.7, NHTSA notifies the petitioner in writing of the agency's decision to grant or deny the exemption petition.

This grant of petition for exemption considers Mazda Motor Corporation's (Mazda) petition for its confidential vehicle line beginning in MY 2024.

## **I. Specific Petition Content Requirements under 49 CFR 543.6**

Pursuant to 49 CFR part 543, Exemption from Vehicle Theft Prevention, Mazda

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<sup>2</sup> 49 U.S.C. 33106(d).

petitioned for an exemption for its specified vehicle line from the parts-marking requirements of the theft prevention standard, beginning in MY 2024. Mazda petitioned under 49 CFR 543.6, Petition: Specific content requirements, which, as described above, requires manufacturers to provide specific information about the antitheft device installed as standard equipment on all vehicles in the line for which an exemption is sought, the antitheft device's capabilities, and the reasons the petitioner believes the device to be as effective at reducing and deterring theft as compliance with the parts-marking requirements.

More specifically, section 543.6(a)(1) requires petitions to include a statement that an antitheft device will be installed as standard equipment on all vehicles in the line for which the exemption is sought. Under section 543.6(a)(2), each petition must list each component in the antitheft system, and include a diagram showing the location of each of those components within the vehicle. As required by section 543.6(a)(3), each petition must include an explanation of the means and process by which the device is activated and functions, including any aspect of the device designed to: (1) facilitate or encourage its activation by motorists; (2) attract attention to the efforts of an unauthorized person to enter or move a vehicle by means other than a key; (3) prevent defeating or circumventing the device by an unauthorized person attempting to enter a vehicle by means other than a key; (4) prevent the operation of a vehicle which an unauthorized person has entered using means other than a key; and (5) ensure the reliability and durability of the device.<sup>3</sup>

In addition to providing information about the antitheft device and its functionality, petitioners must also submit the reasons for their belief that the antitheft device will be effective in reducing and deterring motor vehicle theft, including any theft data and other data that are available to the petitioner and form a basis for that belief,<sup>4</sup> and the reasons for their belief that the agency should determine that the antitheft device is likely to be as effective as compliance with

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<sup>3</sup> 49 CFR 543.6(a)(3).

<sup>4</sup> 49 CFR 543.6(a)(4).

the parts-marking requirements of part 541 in reducing and deterring motor vehicle theft. In support of this belief, the petitioners should include any statistical data that are available to the petitioner and form the basis for the petitioner's belief that a line of passenger motor vehicles equipped with the antitheft device is likely to have a theft rate equal to or less than that of passenger motor vehicles of the same, or a similar, line which have parts marked in compliance with part 541.<sup>5</sup>

The following sections describe Mazda's petition information provided pursuant to 49 CFR part 543, Exemption from Vehicle Theft Prevention. To the extent that specific information in Mazda's petition is subject to a properly filed confidentiality request, that information was not disclosed as part of this notice.<sup>6</sup>

## **II. Mazda's Petition for Exemption**

In a petition dated May 19, 2022, Mazda requested an exemption from the parts-marking requirements of the theft prevention standard for its confidential vehicle line beginning with MY 2024.

In its petition, Mazda provided a detailed description and diagram of the identity, design, and location of the components of the antitheft device for the confidential vehicle line. Mazda stated that its MY 2024 confidential vehicle line will be installed with a passive, transponder based, electronic engine immobilizer antitheft device as standard equipment. Key components of its antitheft device will include a powertrain control module (PCM), immobilizer control module, security indicator light, coil antenna, transmitter with transponder key (transponder key), low frequency (LF) antenna, radio frequency (RF) receiver and a low frequency unit (LFU). The device will not provide any visible or audible indication of unauthorized vehicle entry (i.e., flashing lights or horn alarm) as standard equipment; however, Mazda stated that its device will incorporate a security indicator light which will provide a visual confirmation on the protection

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<sup>5</sup> 49 CFR 543.6(a)(5).

<sup>6</sup> 49 CFR 512.20(a).

status of the antitheft device.

Pursuant to section 543.6(a)(3), Mazda explained that there are two methods of initiating the antitheft device operation process. Specifically, Mazda stated that the immobilizer system monitors two codes: 1) the transponder code, which the immobilizer control module checks with the transponder located in the transmitter; and 2) the immobilizer code, which the immobilizer control module checks with the powertrain's electronic control module. Mazda also stated that there are two means of checking the transponder code: 1) when the immobilizer control module communicates with the transmitter which includes a transponder by LF antenna and receives a reply of transmitter in the RF receiver; and 2) when the immobilizer control module communicates with the transponder by coil antenna which is located in the push button start. If the transponder code matches with the immobilizer control module by either method mentioned above, and the ignition is turned to the ON position, the immobilizer control module checks the powertrain's electronic control module with immobilizer code. Mazda further stated that the vehicle's engine can only be started if the immobilizer code matches the code previously programmed into the immobilizer control module. If the immobilizer code does not match, the engine will be disabled. Communications between the immobilizer system control function and the powertrain's electronic control module are encrypted. Mazda also stated that there are more than  $15 \times 10^6$  different transponder codes, and each transponder is hard coded with a unique code at the time of manufacture.

As required in section 543.6(a)(3)(v), Mazda provided information on the reliability and durability of its proposed device. To ensure reliability and durability of the device, Mazda conducted tests based on its own specified standards. Mazda provided a detailed list of the tests conducted (i.e., low/high temperature exposure operation, high temperature endurance, thermal cycling, thermal shock resistance, thermal shock endurance, humidity temperature cycling, high temperature and humidity endurance, water, dust, vibration, connector and lead/lock strength, chemical resistance, electromagnetic field, power line variations, DC stresses, electrostatic

discharge and push button start strength) and stated that it believes the device is reliable and durable since it complied with its own specified requirements for each test. Additionally, Mazda stated that its device is extremely reliable and durable because it is computer-based and does not rely on any mechanical or moving parts. Mazda further stated that any attempt to slam-pull its vehicle's ignition will have no effect on a thief's ability to start the vehicle without the correct code being transmitted to the electronic control modules.

Mazda provided data from the Highway Loss Data Institute (HLDI), National Crime Information Center (NCIC), and Insurance Institute for Highway Safety (IIHS) on the effectiveness of other similar antitheft devices installed on vehicle lines in support of its belief that its device will be at least as effective as those comparable devices. Specifically, Mazda stated that its device was installed on certain MY 1996 Ford vehicles as standard equipment, (i.e., all Ford Mustang GT and Cobra models, Ford Taurus LX, and SHO models and Ford Sable LS models). In MY 1997, Mazda installed its immobilizer device on the entire Ford Mustang vehicle line as standard equipment. When comparing 1995 model year Mustang vehicle thefts (without immobilizers) with MY 1997 Mustang vehicle thefts (with immobilizers), Mazda referenced the National Crime Information Center's (NCIC) theft information which showed that there was a 70% reduction in theft experienced when comparing MY 1997 Mustang vehicle thefts (with immobilizers) to MY 1995 Mustang vehicle thefts (without immobilizers). Mazda recognized that NHTSA requested data for vehicle sets that are as similar as possible to the vehicle for which the petition is written;<sup>7</sup> however, Mazda stated that there is no comparable data for Mazda's SUV before and after the implementation of an immobilizer system, because all of Mazda's similar vehicles have been equipped with a standard immobilizer from the onset of manufacture. In light of these considerations, Mazda stated that the NCIC and HLDI data provided supported its belief that the immobilizer system described in its petition will prove to

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<sup>7</sup> See 85 FR 55368 (Sep. 8, 2020).

be as, if not more effective, than the parts marking requirements of part 541 in reducing vehicle theft.

### **III. Decision to Grant the Petition**

Pursuant to 49 U.S.C. 33106 and 49 CFR 543.8(b), the agency grants a petition for exemption from the parts-marking requirements of part 541, either in whole or in part, if it determines that, based upon substantial evidence, the standard equipment antitheft device is likely to be as effective in reducing and deterring motor vehicle theft as compliance with the parts-marking requirements of part 541.

NHTSA finds that Mazda has provided adequate reasons for its belief that the antitheft device for its vehicle line is likely to be as effective in reducing and deterring motor vehicle theft as compliance with the parts-marking requirements of the theft prevention standard. This conclusion is based on the information Mazda provided about its antitheft device. NHTSA believes, based on Mazda's supporting evidence, that the antitheft device described for its vehicle line is likely to be as effective in reducing and deterring motor vehicle theft as compliance with the parts-marking requirements of the theft prevention standard.

The agency concludes that Mazda's antitheft device will provide four types of performance features listed in section 543.6(a)(3): promoting activation; preventing defeat or circumvention of the device by unauthorized persons; preventing operation of the vehicle by unauthorized entrants; and ensuring the reliability and durability of the device.

The agency notes that 49 CFR part 541, Appendix A-1, identifies those lines that are exempted from the theft prevention standard for a given model year. 49 CFR 543.8(f) contains publication requirements incident to the disposition of all part 543 petitions. Advanced listing, including the release of future product nameplates, the beginning model year for which the petition is granted and a general description of the antitheft device is necessary in order to notify law enforcement agencies of new vehicle lines exempted from the parts-marking requirements of the theft prevention standard.



If Mazda decides not to use the exemption for its requested vehicle line, the manufacturer must formally notify the agency. If such a decision is made, the line must be fully marked as required by 49 CFR 541.5 and 541.6 (marking of major component parts and replacement parts).

NHTSA notes that if a manufacturer to which an exemption has been granted wishes in the future to modify the device on which the exemption is based, the company may have to submit a petition to modify the exemption. Section 543.8(d) states that a part 543 exemption applies only to vehicles that belong to a line exempted under this part and equipped with the antitheft device on which the line's exemption is based. Further, section 543.10(c)(2) provides for the submission of petitions "to modify an exemption to permit the use of an antitheft device similar to but differing from the one specified in the exemption."<sup>8</sup>

For the foregoing reasons, the agency hereby announces a grant in full of Mazda's petition for exemption for the confidential vehicle line from the parts-marking requirements of 49 CFR part 541, beginning with its MY 2024 vehicles.

Issued under authority delegated in 49 CFR 1.95, 501.5 and 501.8.

Jane H. Doherty,

*Director, Office of International Policy, Fuel Economy & Consumer Standards.*

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<sup>8</sup> The agency wishes to minimize the administrative burden that section 543.10(c)(2) could place on exempted vehicle manufacturers and itself. The agency did not intend in drafting part 543 to require the submission of a modification petition for every change to the components or design of an antitheft device. The significance of many such changes could be de minimis. Therefore, NHTSA suggests that if a manufacturer with an exemption contemplates making any changes, the effects of which might be characterized as de minimis, it should consult the agency before preparing and submitting a petition to modify.